

See, also, how Dante characterises in the following lines the mighty power of the sun :—

“Lo ministro maggior della natura,
Che del valor del cielo il mondo imprenta,
E col suo lume il tempo ne misura,”
Par., C. x., lines 28–30.

It is also remarkable that the great Italian poet, differing in opinion from Aristotle (“il maestro di color che sanno”), and Ptolemy, who believed that the light of the Milky Way was caused by the density of the sky at the zone through which it passes, thought, with Democritus, that the puzzling galaxy consisted of an immense number of stars, more or less bright; as the following lines tell us :—

“Come, distiuta da minori e maggi
Lumi, biancheggia tra i poli del mondo
Galassia sì, che fa dubbiar ben saggi,”
Par., C. xiv., lines 97–99.

And, to finish with quotations, see in the following lines how Dante held firm the true one of the many theories of the tides which were advocated in the Middle Ages :—

“E come il volger del ciel della luna
Cuopre e discuopre i liti senza posa,
Così fa di Fiorenza la fortuna;”
Par., C. xvi., lines 82–84.

The foregoing quotations are sufficient to prove that Dante possessed a vast amount of scientific knowledge, which, in most cases, he displays most judiciously to interest his readers, and to inculcate in their minds the truths he wants to teach them. In conclusion, I beg leave to say again that if the fame of the great Italian grows in proportion with the world's civilisation, it is because he was not merely a great poet, but because he was also a great artist, a profound philosopher, an eminent astronomer, and an inspired theologian.

N. PERINI.

COLENZO'S MAORI DICTIONARY.

A Maori English Lexicon. By the Rev. W. Colenso. (Wellington, 1898.)

MR. COLENZO'S Maori English Lexicon, being, as stated on the title-page, a comprehensive dictionary of the New Zealand tongue, including mythical, mythological, “taboo” or sacred, genealogical, proverbial, poetical, tropological, sacerdotal, incantatory, natural history, idiomatic, abbreviated, tribal and other names and terms of and allusions to persons, things, acts, and places in ancient times, also showing their affinities with cognate Polynesian dialects and foreign languages, with copious pure Maori examples, has a sad history to tell. To begin with, it is only a first instalment, going no further than *Anguta* in the Maori English part, and *to come* in the English Maori part; nor does it seem settled even now that Mr. Colenso will be able to finish the publication of it. That such a lexicon ought to have been published by the New Zealand Government long ago, admits of no gainsaying. It is a work practically useful to the whole Colony, and who is to publish such a work if the Government declines to do so? As far back as 1861 the Rev. W. Colenso made his first proposal to the House of Representatives. His motion, he tells us, was favourably received, and the

resolution was passed, “That the House considers it highly desirable that a sum of money be devoted for the purpose of commencing a Standard Library Dictionary of the Maori Language.” But there followed the ominous sentence, “as soon as the finances of the Colony will permit.” A new application was made in 1862, when the finances seemed to be in a flourishing state, but without results. Then came the war in 1863, and nothing was done. The Governor, Sir George Grey, took an active interest in the matter; but in spite of that, nothing was done in 1864. At last, in 1865, an estimate was asked for, and Mr. Colenso stated that the time required would be seven years, and the expense would be 300*l.* per annum. In 1865 the House once more decided that it is highly desirable that the Maori dictionary should be commenced forthwith. Mr. Colenso then devoted himself entirely to this work, shutting himself up, as he says, fourteen and even sixteen hours a day. He gave up his official duties and his useful natural history studies, which had made his name familiar to students at home. He received, however, but scant recognition from the Government, and in 1867 it seems that an official inquiry was called for by the House, and another gentleman was appointed to inspect and report. The report was favourable, and so were some other reports in 1868. But the House seems to have grown impatient. Mr. Colenso was informed that the work must be finished by 1870, and that no more money should be paid after that date. After that, the relations between the Government and the compiler of the dictionary seem to have become strained. Unfortunately illness supervened, possibly aggravated by disappointment, for Mr. Colenso speaks of “having been goaded on to desperation almost through the remarks made in the House and the bad faith of the Government.” In 1870 Mr. Colenso entered the Provincial Council again, and was appointed Inspector of Schools, so that he could devote his spare time only to the prosecution of his literary labours. A last appeal was made by Mr. Colenso in 1875, offering to hand over his materials to Government, or to go on again with his work if the Government would grant the necessary funds. To this, we are informed, no answer was returned, but transactions went on, more or less unsatisfactory, till at last the first instalment of the dictionary was sent to press, and published in 1898!

This certainly seems a sad history, and, considering Mr. Colenso's age, we can hardly hope that he will be allowed to finish this great undertaking. In the meantime two Maori dictionaries have been published by Williams and by Tregear, but on a smaller scale; so that Mr. Colenso's work may still be very useful as filling many a gap left by his predecessors. It is difficult for an outsider to form an opinion as to the rights of the case. Scholars are sometimes dilatory, and Governments are sometimes stingy, and that on the highest principles. Personal feuds, too, are difficult to avoid when different parties divide the Government, and patronage is put into the hands of whatever party is in power.

The loss to science, particularly to linguistic studies, is very great, for by his long residence among the Maoris Mr. Colenso seemed highly qualified for the work which

he had undertaken, and which, under more favourable auspices, he might have finished by this time. On comparing some of the entries, even in this small fragment we come across several which are most interesting. It is well known that the Maoris call their gods *Atuas*. But the question is, why? It seems at first sight as if *Atua* was derived from *atu*, a particle expressive of many things. Mr. Colenso enumerates thirty-three meanings of it, one of which is an emphatic *very*, used also to form superlatives and to express extraordinary greatness, or anything that goes beyond everything else. *Atua* may have been derived from it, though it seems to convey not so much the idea of exceeding greatness as of being terrible. Hence it is used as a name of any supernatural and malevolent being, a demon, and also of their gods, many of whom were more or less malevolent. The most dreaded and powerful *Atuas* were *Tu*, *Rongo*, *Tane*, *Tangaroa*, *Tawhiri matea*, and *Whiro*, four of whom appear again as the gods of Hawaii, viz. *Tu*, *Lono* (Rongo), *Kane* (Tane), and *Kanaloo* (Tangaroa). All of these, though invoked, were hated and often threatened by their worshippers. Idols also are called *atua*, and a number of imaginary invisible evil powers, genii, spooks and gnomes, go by the same name. *Atua* is applied also to sickness, pain and death, as personified, in fact, to anything abnormal and monstrous, disgusting and disagreeable. Natives who never touch pork, eels, or even mutton, call them also *atua*; in fact, anything uncanny or unlucky is *atua*. It was unfortunate that the same word should have been taken by the missionaries as the name of the Deity, the one true God, the God of the Christians. This to the natives sounded at first like a solecism, but in the course of time it has lost its original meaning, and serves its purpose now as the name of the God of Love. Mr. Colenso would prefer *Matua*, *Matua-pai* for that purpose, though *Matua* itself is but a derivative of *Atua*.

One remark we should like to make in conclusion. Mr. Colenso generally adds Maori sentences in proof of the meaning assigned to each Maori word. But, alas! he gives no translations; and as the study of Maori has not yet been recognised in our schools and universities, much of the usefulness of these *pieces justificatives* is lost on those who consult his dictionary, however convinced they may feel that Mr. Colenso has rightly interpreted them.

THE SPIDERS OF HUNGARY.

Aranæ hungariæ . . . conscriptæ a Cornelio Chyzer et Ladislao Kulczyński. Vols. i.-ii. (Budapesth: 1891-1897.)

OWING to the homogeneous character of the fauna of Central Europe, this work, although purporting to deal merely with the spiders of Hungary, forms an admirable basis for the study of the species that inhabit the rest of the continent. The determination of the species occurring in the area over which the authors' researches have extended, has of necessity involved a comparison between them and the species previously recorded from Scandinavia, Prussia, Great Britain and France by Clerck, Westring, Menge, Koch, Blackwall, Walckenaer, Simon and others. The fact that so many

naturalists have worked more or less independently, sometimes indeed contemporaneously, at the spiders of their respective countries has unavoidably caused a great deal of clashing in the specific nomenclature; and the endeavour to clear away the resulting confusion certainly forms the most difficult part of the labours of an author who attempts at the present time to monograph the spiders of any area in Europe. It is evident that Dr. Chyzer and Prof. Kulczyński have in nowise shirked their duty in this respect; and although it is improbable that their efforts have met in every instance with the success they deserve, it would be unfair to lay to their charge the blame for any failures that may hereafter come to light. Rather must the responsibility rest with those of their predecessors and contemporaries who, especially when dealing with the more obscure species, have failed to realise the importance of setting aside, as a standard for future comparison, one typical example out of a series of specimens upon which a description was based, or have regarded subsequently and, as results have shown, often wrongly identified examples as of equal importance to the one upon which the species was originally established.

Of the excellence of the book as a whole the names of the authors is sufficient guarantee. A passing word of praise, however, must be bestowed upon the method in which the specific and generic diagnoses are dealt with, since it is a method which might with advantage be imitated by all systematic workers who wish to lighten the labours of those that come after them. The characters of the species and genera are set forth in tabular or synoptic form, so that they may be readily comprehended, and so that a spider of unknown affinities may be rapidly identified, even by a student unfamiliar with the taxonomic features of the family to which it belongs. Such tables, moreover, have the further advantage of inspiring confidence in the ability of an author, since they bear witness to the gift of the scientific faculty of analysis, the absence of which too often renders abortive the efforts of many a systematic zoologist.

Since the families to which the spiders enumerated belong are not diagnosed, it may be supposed that these volumes are not intended for the use of beginners, but only for those who have mastered the first principles of the classification of the *Aranæ*. This is, I think, an omission which somewhat impairs the value of the work. One page, or, perhaps, two pages at most, might with great advantage and but little trouble have been devoted to a tabular representation of the groups of this rank, exactly as has been done in the case of the genera and species. Unfortunately it is quite the fashion amongst arachnologists to fight shy of such a task.

Another slight blemish, in my opinion, is the adoption of such terms as *Misumenoidæ* and *Calommatoïdæ* for the older and better known *Thomisidæ* and *Atypidæ* respectively. The former, and others that could be named, were introduced by Dr. Thorell for reasons that appeared inadequate to most of his contemporaries. Happily they have been recently abandoned by the author to whom they owed their existence, and but for their reappearance in the present case would by this time in all probability have dropped into merited oblivion.

This, however, is after all a matter of very little